

Appl. No. 10/624,794  
Amdt. Dated 06/20/2005  
Reply to Office Action of 05/19/2005

#### REMARKS

This is in response to the Office Action mailed 07/12/2004. In the Office Action, claims 1-10 and 16-67 were restricted under a genus-species type restriction requirement.

Reconsideration of the restriction requirement in view of the remarks made herein is respectfully requested.

Claims 1-10 and 16-67 were previously pending. No new claim is added or cancelled by this paper. Claims 11-15 were previously cancelled without prejudice. Accordingly, claims 1-10 and 16-67 are still pending in this application. Of those pending, claims 1, 4, 16, 21, 29, 43, 54, and 60 are independent claims.

Applicant respectfully submits that no new matter has been added by this response.

#### GENUS-SPECIES RESTRICTION REQUIREMENT

On page 2 of the Office Action, claims 1-10 and 16-67 were restricted into three different species of embodiments as follows:

"Species I = Figure 2B"

"Species II = Figure 2C"

"Species III = Figure 2E"

In response to the restriction requirement, Applicant hereby provisionally elects Species III with traverse.

Appl. No. 10/624,794  
Amdt. Dated 06/20/2005  
Reply to Office Action of 05/19/2005

The Office Action states, "no claim appears to be generic."  
[Office Action, page 2, line 14]. Applicant respectfully  
disagrees.

The Office Action did not offer an explanation as to what  
are the distinguishing features between Species I, Species II,  
and Species III.

From Applicant's brief description of the drawings:

"Figure 2B is a functional block diagram of an exemplary  
multibit stage pipelined analog to digital (A/D) converter  
incorporating the invention."

"Figure 2C is a simplified schematic diagram of a digital  
to analog converter (DAC) with an equally-sized or equally-  
weighted capacitor ladder incorporating the invention." ...

"Figure 2E is a simplified schematic diagram of a  
multiplying digital to analog converter (MDAC) with a capacitor  
array incorporating the invention and functioning as the k-bit  
DAC, analog subtractor, and gain stage for the block diagram of  
Figure 2B." [Applicant's specification, page 4, lines 6-18].

The species of embodiments may be summarized as follows:

Species I of Figure 2B is an A/D converter (ADC)  
incorporating the MDAC of Figure 2E.

Species II = Figure 2C is a D/A converter (DAC).

Species III = Figure 2E is a multiplying DAC or (MDAC)  
which is a specific type of DAC.

"Claims to be restricted to different species must be  
mutually exclusive. The general test as to when claims are

Appl. No. 10/624,794  
Amdt. Dated 06/20/2005  
Reply to Office Action of 05/19/2005

restricted, respectively, to different species is the fact that one claim recites limitations which under the disclosure are found in a first species but not in a second, while a second claim recites limitations disclosed only for the second species and not the first. This is frequently expressed by saying that claims to be restricted to different species must recite the mutually exclusive characteristics of such species. "[MPEP § 806.04(f), 8<sup>th</sup> Edition, Rev. 2, May 2004, Pg. 800-41].

Reviewing claims 1-10 and 16-67, the claims appear to read on the Species as follows:

Claims 1-3 are directed to a capacitor array in an IC.  
(Species 1-3)

Claims 4-10 are directed to a capacitor array in an IC.  
(Species 1-3)

Claims 16-20 are directed to a software program to lay out a capacitor array in an IC. (Species 1-3)

Claims 21-22 are directed to a DAC. (Species 2 and 3)

Claim 23 is directed to an ADC with a DAC. (Species 1-3).

Claims 24-28 are directed to a DAC. (Species 2 and 3)

Claims 29-30 are directed to a DAC. (Species 2 and 3)

Claim 31 is directed to an ADC with a DAC. (Species 1-3).

Claims 32-42 are directed to a DAC. (Species 2 and 3)

Claims 43-53 are directed to an ADC having an MDAC.  
(Species 1 and 3)

Claims 54-59 are directed to an ADC having a DAC. (Species 1-3).

Claims 60-67 are directed to an ADC with an MDAC. (Species 1 and 3)

Appl. No. 10/624,794  
Amdt. Dated 06/20/2005  
Reply to Office Action of 05/19/2005

To summarize:

Claims 1-10, 16-20, 23, 31, and 43-67 read on Species 1.

Claims 1-10, 16-42, and 54-59 read on Species 2.

Claims 1-10 and 16-67 read on Species 3.

"[A] generic claim should read on each of these views."  
[MPEP § 806.04(d), 8<sup>th</sup> Edition, Rev. 2, May 2004, Pg. 800-41].  
"[A] claim may include two or more of the disclosed embodiments within the breadth and scope of definition (and thus be designated a *generic or genus claim*)."  
[MPEP § 806.04(e), 8<sup>th</sup> Edition, Rev. 2, May 2004, Pg. 800-41]. That is, if claims read on all species in a genus-species restriction requirement, they are generic.

Claims 1-10, 16-20, 23, 31, and 54-59 appear to read on all three species.

Thus, it is respectfully submitted that claims 1-10, 16-20, 23, 31, and 54-59 are generic.

In view of the foregoing, reconsideration of the restriction requirement is respectfully requested.

Appl. No. 10/624,794  
Amdt. Dated 06/20/2005  
Reply to Office Action of 05/19/2005

### CONCLUSION

In view of the foregoing, a first substantive examination of the pending claims is respectfully requested. Allowance of the pending claims at an early date is respectfully solicited.

The Examiner is invited to contact Applicant's undersigned counsel by telephone at (714) 557-3800 to expedite the prosecution of this case should there be any unresolved matters remaining.

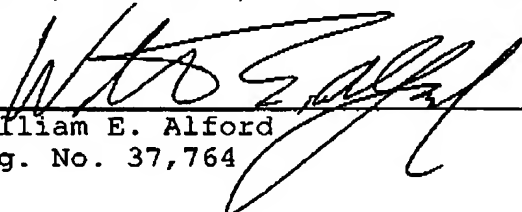
To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made.

Please charge any shortage in fees in connection with the filing of this paper, including extension of time fees, to Deposit Account 02-2666 and please credit any excess fees to such deposit account.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: June 20, 2005

  
\_\_\_\_\_  
William E. Alford  
Reg. No. 37,764

12400 Wilshire Boulevard, 7<sup>th</sup> Floor  
Los Angeles, California 90025  
(714) 557-3800

### **CERTIFICATE OF FACSIMILE TRANSMISSION**

*I hereby certify that this correspondence is being transmitted via facsimile to the Patent and Trademark Office under 37 CFR §1.8 on: June 20, 2005 to Examiner Remmon Forde at (703) 872-9386.*

  
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Nicole Erquaga  
6/20/05  
Date